# TRI-STATE COMPUTER STUDY: EXPLANATION OF FILES AND PROCEDURES

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01-11-85

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# *INTRODUCTION*

*Note: Anyone wishing to access and use the information contained on the diskettes from this study should have a working knowledge of databases and the dBASEII Relational Database management System which was used for this study.*

*This introduction has been provided only to insure a better understanding of the information contained in this report.*

In this study, the production of mining companies, which operated in the Tri-State District between the years of 1908 and 1959, has been analyzed and entered into a number of computer databases.

A database is a collection of information, organized and presented to serve a useful purpose. Databases are composed of records which are internal units of data items. Each entry of a mining company and the information contained along with it, is one record. A record, in turn, is composed of fields which each contain a specific data item.

The first step in creating a database is to create a structure. A structure is a predefined organization of the database. It is established by the definition of three factors: fieldname, fieldtype, and fieldwidth. The fieldname is simply the title of the field. It is used for identifying a specific data unit. Three types of fields can be used in a record (character, numeric, and logical). This is defined by the fieldtype. The fieldwidth defines the number of spaces needed in the field to contain the data.

Once the structure has been created, the data may be entered into the database.

The files are contained on two sets of floppy diskettes which are stored in the Viburnum vault. They are in storage boxes labeled "Tri-State Investigation". One set of diskettes is the original and the other set is a backup. The boxes in which they are contained are labeled as such. The backup set should always be used in place of the originals which should only be used when absolutely necessary.

Each disk has been protected with a write-protect tab. The tabs are to insure that the files will not be accidentally overwritten. The contents of the disk cannot be altered while the tab is in place. Do not remove the tabs or alter the files without proper authorization.

The following report is an explanation of the files and procedures used in this study.

## *SYSTEM REQUIREMENTS*

Below is a description of the system setup used to conduct this study.

Hardware:

IBM PC with 320K byte memory
Dual 360k byte diskette drives
FX-100 dot matrix printer

Software:

dBASEII Relational Database Management System
Volkswriter Word Processing System

Operating System:

DOS 2.0

## *DATABASE FILES*

In this study, the Tri-State Area was divided into the individual areas of Oklahoma, Kansas, Southwest Missouri, and Southeast Missouri. There are two separate database files for each area - TRITON files and TRILOC files. The TRITON files contain the databases of mine production and the TRILOC files contain the databases of mine location.These databases are explained below.

DISK LABEL: TRITON1.DBF (OKLAHOMA)
FILES: TRITON1.DBF - The production database of the Oklahoma portion of the Tri-State area.

DISK LABEL: TRITON2.DBF (KANSAS)
FILES: TRITON2.DBF - The production database of the Kansas portion of the Tri-State area.

DISK LABEL: TRITON3.DBF (SW MISSOURI)
FILES: TRITON3.DBF - The production database of the Southwest Missouri portion of the Tri-State area.

DISK LABEL: TRITON4.DBF (SE MISSOURI)
FILES: TRITON4.DBF - The production database of the Southeast Missouri portion of the Tri-State area.

DISK LABEL: TRILOC1.DBF (OKLAHOMA)
FILES: TRILOC1.DBF - The mine location database of the Oklahoma portion of the Tri-State area.

DISK LABEL: TRILOC2.DBF (KANSAS)
FILES: TRILOC2.DBF - The mine location database of the Kansas portion of the Tri-State area.

DISK LABEL: TRILOC3.DBF (SW MISSOURI)
FILES: TRILOC3.DBF - The mine location database of the Southwest Missouri portion of the Tri-State area.

DISK LABEL: TRILOC4.DBF (SE MISSOURI)
FILES: TRILOC4.DBF - The mine location database of the Southeast Missouri portion of the Tri-State area.

## *STRUCTURES*

The structures used for the databases were carefully planned to maximize the amount of possible information manipulation that could be performed on the computer. However, the structures contain fields which were not used due to planning changes during the data entry period.

All of the TRITON files have been set up using the following structure:

| FIELDNAME | FIELDTYPE | FIELDWIDTH |
|---|---|---|
| YEAR | C | 4 |
| MINELOC | C | 15 |
| ALIAS | C | 15 |
| COMPANY | C | 15 |
| PRDCLASS | C | 1 |
| TONORE | N | 9 |
| NUMTYPE | C | 1 |
| TONPBS | N | 6 |
| TONZNS | N | 6 |

The TRILOC file structure is as follows:

| FIELDNAME | FIELDTYPE | FIELDWIDTH |
|---|---|---|
| YEAR | C | 4 |
| MINELOC | C | 15 |
| COMPANY | C | 15 |
| TWP | C | 7 |
| RNG | C | 7 |
| LOCATION | C | 25 |
| COUNTY | C | 10 |

The fieldnames are only a means of labeling the fields. Below is an explanation of the fieldnames used in this study.

YEAR - The year of operation.
MINELOC - The name of the mine.
ALIAS - Not used.
COMPANY - The name of the mining company.
PRDCLASS - Not used.
TONORE - The tonnage of crude ore mined that year.

(continued on next page)

NUMTYPE - A classification field used in placing certain records as having one of the following delimiters:

A - Apportioned. The lump sum tonnage has been equally divided among the named contributing mining companies.

E - Estimated. The tonnage was listed by the compiler as 'Estimated'.

N - No tons of ore reported. In these cases, for the first six years, so few tons of ore were reported that, in order to get an idea of the tonnage mined, the actual recovered concentrate was assumed to be an average 12.5% of the total crude ore tonnage. The following equation was used to determine the approximated value for TONORE:

$$TONORE = 12.5 \times (TONPBS + TONZNS)$$

C - Cleanup. The reported tonnage was recorded from a cleanup operation.

B - Boulders. The reported tonnage was recorded from recovered boulders.

TONPBS - Tons of lead concentrate produced that year.
TONZNS - Tons of zinc concentrate produced that year.
TWP - The township where the mine is located.
RNG - The range where the mine is located.
LOCATION - The section and location of the mine.

*INDEX FILES*

Index files are files which the computer creates to sort a database on the fields that the user designates. The following is a directory and explanation of the index files used in this study.

DISK LABEL: DBASE II INDEX FILES (1)
FILES: YRMINE1.NDX - The database TRITON1.DBF indexed on YEAR + MINELOC. This index is only used for printing reports.

YRCOMP1.NDX - The database TRITON1.DBF indexed on YEAR + COMPANY.

DISK LABEL: DBASE II INDEX FILES (2)
FILES: COMP1.NDX - The database TRITON1.DBF indexed on COMPANY.

MINE1.NDX - The database TRITON1.DBF indexed on MINELOC + YEAR.

DISK LABEL: DBASE II INDEX FILES (3)
FILES: YRMINE2.NDX - The database TRITON2.DBF indexed on YEAR + MINELOC. This index is only used for printing reports.

YRCOMP2.NDX - The database TRITON2.DBF indexed on YEAR + COMPANY.

DISK LABEL: DBASE II INDEX FILES (4)
FILES: COMP2.NDX - The database TRITON2.DBF indexed on COMPANY.

MINE1.NDX - The database TRITON1.DBF indexed on MINELOC + YEAR.

DISK LABEL: DBASE II INDEX FILES (5)
FILES: YRMINE3.NDX - The database TRITON3.DBF indexed on YEAR + MINELOC. This index is only used for printing reports.

YRCOMP3.NDX - The database TRITON3.DBF indexed on YEAR + COMPANY.

DISK LABEL: DBASE II INDEX FILES (6)
FILES: COMP3.NDX - The database TRITON3.DBF indexed on COMPANY.

MINE3.NDX - The database TRITON3.DBF indexed on MINELOC + YEAR.

DISK LABEL: DBASE II INDEX FILES (7)
FILES: YRMINE4.NDX - The database TRITON4.DBF indexed on YEAR + MINELOC. This index is only used for printing reports.

YRCOMP4.NDX - The database TRITON4.DBF indexed on YEAR + COMPANY.

DISK LABEL: DBASE II INDEX FILES (8)
FILES: COMP4.NDX - The database TRITON4.DBF indexed on COMPANY.

MINE1.NDX - The database TRITON1.DBF indexed

## *REPORT FORM FILES*

Report form files are simply formats which are used by the computer to control printing. These formats allow the user to define th format as well as logical conditions for the computer to follow. This allows specific data to be printed. The following is a directory and explanation of the report form files used in this study.

DISK LABEL: REPORT FORM FILES

FILES: FORM1.FRM - Report form used for Oklahoma reports labeled:

Tar Creek Mining District
(Ottawa County, Oklahoma)

FORM2TC.FRM - Report form used for Kansas reports labeled:

Tar Creek Mining District
(Cherokee County, Kansas)

FORM2TB.FRM - Report form used for Kansas reports labeled:

Tar Creek-Baxter Springs Mining District
(Cherokee County, Kansas)

FORM2CC.FRM - Report form used for Kansas reports labeled:

Cherokee County, Kansas

FORM3SW.FRM - Report form used for Southwest Missouri reports labeled:

Southwest Missouri Mining District

FORM3SE.FRM - Report form used for Southeast Missouri reports labeled:

Southeast Missouri Mining District

*Note: The printer must be set at 12 cpi on 8.5" X 11" paper.*
see "PRINTER SETUP"

## *COMPANY TOTALS*

These files contain individual company totals where the tons of ore, tons of lead, and tons of zinc have been totaled for each company for the 51-year period that this study has included. The files were completely computer generated from the databases. The following is a directory and explanation of the company total files used in this study.

DISK LABEL: COMPANY TOTALS

FILES:

TOTAL1.DBF - The file containing the company totals for the Oklahoma portion of the Tri-State Area.

TOTAL2.DBF - The file containing the company totals for the Kansas portion of the Tri-State Area.

TOTAL3.DBF - The file containing the company totals for the Southwest Missouri portion of the Tri-State Area.

TOTAL4.DBF - The file containing the company totals for the Southeast missouri portion of the Tri-State Area.

## *PRINTER SETUP*

The printer used in this study (Epson FX-100) allows many character sizes to be printed. Listed on pages 3-22, 3-23 of the printer manual are examples of the different print modes. The following BASIC program was used as a quick and easy way to set the printer to the preferred mode.

```
10 CLS
20 INPUT "What mode would you like";MODE
30 LPRINT CHR$(27)"D";
40 LPRINT CHR$(20);CHR$(0);
50 LPRINT CHR$(27);"!";
60 LPRINT CHR$(0);CHR$(9);
70 LPRINT CHR$(27);"!";
80 LPRINT CHR$(MODE)
90 END
```